REMARKS

Claims 1 and 4-20 currently appear in this application. The Office Action of August 3, 2004, and the Advisory Action of September 28, 2004, have been carefully studied. These claims define novel and unobvious subject matter under Sections 102 and 103 of 35 U.S.C., and therefore should be allowed. Applicants respectfully request favorable reconsideration, entry of the present amendment, and formal allowance of the claims.

Election/Restriction

Claims 8-16 are drawn to an invention non-elected with traverse. Because of the possibility of rejoinder of non-elected claims, these claims will be cancelled upon allowance of claims 1-7 and 18-20.

Art Rejections

Claims 1-7 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of applicant's admissions. The Examiner concedes that Smith does not explicitly teach using the anion exchange column to remove tartrates, but states that it is inherent that the column will, as it is operated, work as claimed. Smith is said to teach recirculation of the streams. The Examiner further concedes that Smith does not teach using a nanofiber as the membrane. Applicants are said to admit on pages 6-7 of the

application as filed that the "possibility to substitute a filtration membrane to increase or reduce pressure is well known and a comparison between nanofiltration membranes and reverse osmosis ones is made, for example, in Amati et al…"The Examiner reads this as admitting that nanofiltration membranes and reverse osmosis membranes are equivalent. Smith is also said to teach the use of electrodialysis.

This rejection is respectfully traversed. Both Ferrarini, the present inventor, and Smith refer to **ANIONIC** exchange resin for removing negative ions, in particular **tartrate ions derived from tartaric** acid and **acetate** ions derived from acetic acid, or to an electrodialysis unit)see Ferrarini page 3, paragraphs 54-57 and Smith, column 3, line 65 to column 4, line 25). However, only Ferrarini teaches the use of **CATIONIC** exchange resin to remove potassium (K+) or calcium ions (Ca++), both of which are **positive** ions, from the permeate liquid.

At page 2, penultimate paragraph, of the Office Action, the Examiner admits, "While Smith does not explicitly teach using the **ANION** exchange column to remote **tartrates**, it is inherent that the column will, as it is operated as, claimed." Applicant concedes that Smith teaches how to remove tartrates and acetate from the permeate, but respectfully notes that Smith teaches using an anion exchange column to

remove acetic acid from the solution. Smith is completely silent with respect to removing tartrate ions using ion exchange. Smith's ion exchange column provides high pH conditions to hydrolyze ethyl acetate to ethanol and acetic acid and the positively charged column absorbs substantially all of the acetate (column 2, lines 15-21). The Smith column becomes more and more acidic as a greater amount of acetate is extracted, so that a pH gradient develops. As the ethyl acetate approaches the region of high pH, it is base hydrolyzed (column 4, lines 33-45). There is no such pH gradient in the process of the present invention.

It is well known to those skilled in the art that the term "tartaric stabilization" refers to the control of ionic balance in wine by removing potassium and calcium cations and **tartrate ions**, such as reported in FR 2709308, page 1, lines 5-10. In fact, it is usually known that grapes contain a high level of tartaric acid (from 1 to 3 g/L of juice) as well as a high level of potassium (from 0.8 to 1.5 g/L of juice). In stating on page 3, second paragraph of the Office Action, the Examiner alleges that it is well known in the art "to use a cationic exchange resin to remove potassium ions from the permeated liquid", citing as proof Smith, column 3 line 65 to column 4, line 25. However, Smith also disclose at column 1, lines 39-61, that subjecting juice to

ultrafiltration to deactivate enzymes and ultrafiltration to isolate juice in a permeate which is then subjected to reverse osmosis treatment to concentrate the juice. The reverse osmosis retentate can also be treated to deacidify it, such as by the use of an ion-exchange column. However, this process would be deleterious in producing high quality wine or juice because anion exchange of the retentate removes both the undesirable components and components which are essential to the quality and value of the product. Thus, it is respectfully submitted, Smith teaches that ion exchange is only useful for removing "volatile acidity" from the wine. In Smith, the anion exchange column provides high pH conditions which hydrolyze ethyl acetate to ethanol and acetic acid, and the positively-charged column absorbs substantially all of the acetate (column 2, lines 11-21).

In contrast to the Examiner's assertion, Smith does not teach at all the use of cationic exchange resin for tartrate stabilization and hence for removing potassium. In fact, Smith only considers the possibility of rinsing the **ANIONIC** resin for removing potassium after the column has been charged with 4% KOH solution for re-establishing the groups which are able to remove the tartrate ions. Smith refers to potassium ions (K+) derived from the 4% KOH solution, not to potassium ions already present in the wine.

Moreover, it is quite evident to one skilled in the art that an anion exchange resin cannot remove positive ions such as potassium (K^+) or Ca (Ca^{++}) ions. Smith only teaches removing the negative tartrate ions with the aim of reducing the volatile acidity (VA) of the wine. Therefore, it is respectfully submitted that Smith teaches **away** from the present invention with respect to tartaric stabilization of wine, which requires removal of positive ions such as potassium and calcium ion.

With respect to the Examiner's statement in the Advisory Action, the claims have been narrowed to specific resins, those resins that remove either potassium ions or tartrate ions.

In view of the above, it is respectfully submitted that the claims are now in condition for allowance, and favorable action thereon is earnestly solicited.

Respectfully submitted,

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